

Climatological Data for August, 1910.
DISTRICT No. 8, TEXAS AND RIO GRANDE VALLEY.

BERNARD BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The month of August was marked by persistently warm weather and decidedly deficient precipitation in the greater portion of the district. Conditions in Texas were very unfavorable on account of the dry and hot weather, and in some sections water for domestic and stock purposes gave out entirely and had to be transported by wagon and otherwise from other points. Only a comparatively small part of the State, comprising the lower coast counties and a few northern and northwestern counties, received more than the average amount of moisture. Heavy rains occurred in many localities in New Mexico, although the average precipitation for the month was a fraction of an inch below the normal in that territory. Some of these rains caused considerable damage by washouts and interruption to traffic. The rainfall was not well distributed, being of the usual summer thunderstorm type, with widely differing amounts in even near-by localities.

The greatest monthly precipitation in Colorado was 3.70 inches at Platoro; in New Mexico, 7.31 inches at Cloudercroft; and in Texas, 7.26 inches at Brownsville. There was no rain at 8 stations in Texas, and at 18 others in the same State the monthly amounts were less than 0.10 inch. The least monthly amount in Colorado was 0.84 inch at Saguache; and in New Mexico, 0.31 inch near Los Lunas. Excessive precipitation of 2.50 inches or more in 24 consecutive hours occurred as follows: Knowles, 2.77; Liston, 3.00; Pastura, 2.86; Abilene, 2.58; Brownsville 5.72; and Gatesville, 3.65.

The sunshine was abundant in Texas, but it averaged less than normal in the remaining portions of the district. The number of days with 0.01 inch or more of precipitation averaged 12 in Colorado, 10 in New Mexico, and 3 in Texas.

TEMPERATURE.

The monthly mean temperature was 0.8° above normal in Colorado; 1.9° above in New Mexico; and 2.8° above in Texas, the excess of temperature being greatest in the middle portions of the district. There was very little cool weather, and practically no relief in much of the greater portion of Texas from the protracted heated term. A few cool spells occurred in the upper half of the district, but they were mild and of short duration. The warmest weather in most sections occurred on the 2d, and the coolest on the 26th. The daily range of temperature averaged about 8° on the upper Texas coast and about 36° in the extreme northwestern portion of the district.

The highest and lowest temperatures reported were: In Colorado, 90° at Saguache on the 3d, 8th, 22d, and 27th, and 28° at Hermit on the 26th; in New Mexico, 108° at Carlsbad on the 2d, and 34° at Truchas on the 13th; and in Texas, 114° at Haskell on the 2d, and 50° at Plainview on the 26th. The local monthly means ranged from 60.9° to 64.8° in Colorado; from 55.5° to 83.2° in New Mexico; and from 77.6° to 93.1° in Texas.

PRECIPITATION.

Good rains occurred over the Rio Grande watershed in numerous localities north of El Paso, and heavy rains occurred over the extreme lower valley, but over much of the greater portion of the watershed the precipitation was deficient. The rainfall was least over a long stretch between El Paso and Eagle Pass, Tex. The average for the entire watershed was 2.14 inches or nearly 1.00 inch more than for the preceding month. The Rio Pecos watershed received much more moisture, the average being 3.03 inches. This is over 1.50 inch more than the July rainfall. The precipitation was heaviest over the upper reaches, where from 5.00 to 7.00 inches occurred in several localities, and least over the lower portion, which received considerably less than 1.00 inch.

The other watersheds of the district showed a decided deficiency of precipitation, the shortage ranging from 0.97 inch for the Trinity and Neches to 2.26 inches for the San Antonio. A few localities only, in the upper Brazos and upper Trinity watersheds, received slightly more than the normal. The following are the average monthly amounts in inches for the various watersheds: Nueces, 0.69; San Antonio, 0.38; Guadalupe, 0.45; Lavaca, 0.55; Colorado, 0.58; Brazos, 1.11; Trinity, 0.91; Neches, 1.19; Sabine, 1.74; and coastal plains, 1.64. These amounts are much less than those reported for the preceding month, except in case of the Sabine watershed which showed a considerable gain, and of the Brazos which averaged about the same.

RIVER CONDITIONS.

The rains in Colorado and New Mexico caused a largely increased flow in the upper portions of the Rio Grande, but the lower portion continued abnormally low during the month, although it furnished sufficient water for irrigation and stock purposes. The lower Rio Grande began to rise toward the close of the month. There was a decided increase in the volume of water discharged by the Rio Pecos, and all irrigation projects on both the Rio Pecos and Rio Grande received ample supplies of water, a marked improvement over conditions of the preceding month.

Unusually low stages obtained in all the other rivers of the district. Their flow was smaller than during July and is the smallest on record for August.

MISCELLANEOUS.

Meteor.—An unusually brilliant meteor was observed in many localities in eastern and southeastern Texas at 7:30 p. m. of the 19th. Mr. T. A. King, cooperative observer of this service at Lufkin, Tex., furnished the following description:

The largest meteor ever seen here passed over this city on the 19th about 7:30 p. m. When first seen it appeared to be about 2 inches in diameter, and as it approached the city it grew in size and brightness until it was dazzling to the eye. It came from the north and plunged southward, lighting up the entire heavens like a short vivid flash of lightning. When near the horizon it exploded without any noise. When it exploded it appeared to be about 2 feet in diameter, showing the different colors of the rainbow, followed by a dense white cloud, which lasted for 20 minutes before dissolving.

According to press dispatches from Liberty, Tex., which is about 100 miles south of Lufkin, the meteor was moving slightly west of north and bursting with a vivid flash. At Livingston, Tex., about midway between Lufkin and Liberty, the meteor was seen to shoot downward across the eastern sky and burst some distance from the earth. In about 5 minutes a loud rumbling noise like thunder was heard which lasted about 60 or 70 seconds.

Drainage districts.—Drainage District No. 1 was established in Cameron County, Tex., by the commissioners' court of that county on the 18th. The area to be drained comprises 81,000 acres, and the cost of drainage will be covered by a bond issue of \$204,600.

Irrigation projects.—At Corpus Christi, Tex., a water and irrigation company has been formed for the purpose of constructing a reservoir and storing the flood waters of the Nueces River for irrigating and domestic uses.

The Camfield Development Company will begin the construction of a large irrigation plant just north of Las Vegas, N. Mex., for the purpose of irrigating 17,000 acres of land.

An irrigation project, which has been approved by the territorial engineer, is contemplated in Santa Fe County, N. Mex. It is proposed to dam the Armijo arroyo and a tributary arroyo for the purpose of storing sufficient water to irrigate 13,000 acres.

TABLE 1.—Climatological data for August, 1910. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Total snowfall unmetted.	Number of rainy days .01 inch or more.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Date.								
<i>Colorado.</i>																			
Blanca.	Costilla.	8,403	1	61.4		86	21 ⁺	36	26	44	1.02		0.38	0.0	11	4	25	2	ne.
Cumbres.	Conejos.	10,015	3								3.47		1.01	0.0	12	3	23	5	
Garnett.	Costilla.	7,576	17	60.9	0.0	86	21 ⁺	35	25	43	1.07	-0.24	0.25	0.0	9	5	19	7	
Hermit.	Hinsdale.	9,843									2.98		0.91	0.0	16	8	10	13	
La Veta Pass.	Costilla.	9,000																	
Manassa.	Conejos.	7,700	4	61.4		84	23 ⁺	37	25	43	1.27		0.35	0.0	8	6	18	7	nw.
Platoro.	do.	9,675	2								3.70		0.70	0.0	21	6	24	1	w.
Saguache.	Saguache.	7,740	18	64.8	+ 2.3	90	31	38	26	50	0.84	-0.56	0.49	0.0	6	10	4	17	w.
San Luis.	Costilla.	7,704	1	62.3	+ 0.2	83	7 ⁺	39	26	43	2.13	+ 0.61	0.94	0.0	10	1	27	3	sw.
Wagon Wheel Gap.	Mineral.	8,434	11	55.2		83	21	30	7 ⁺	50	3.11	+ 1.01	0.40	0.0	16	3	28	0	w.
<i>New Mexico.</i>																			
Agricultural College.	Dona Ana.	3,863	44	81.5	+ 2.1	102	27	61	30	34	1.46	-0.25	0.61	0.0	6	4	27	0	
Alamogordo (near).	Otero.	4,338	9	78.9		100	3	57	27	36	4.05		1.47	0.0	12	6	24	1	sw.
Alamogordo.	do.	4,320	1								2.49		1.45	0.0	8				
Albuquerque.	Bernalillo.	5,000	34								1.51	+ 0.19	0.42	0.0	12	14	16	1	c.
Ancho.	Lincoln.	6,112	1								2.28		0.60	0.0	7	8	15		sc.
Artesia.	Eddy.	3,350	2	80.4		104	24 ⁺	54	26	41	2.04		1.35	0.0	4	25	3	3	
Aspen Grove Ranch.	Rio Arriba.	9,000	1								3.58		1.22	0.0	10	9	27	2	
Bateman's Ranch.	do.	8,900	1								2.42		1.03	0.0	9	11	18	2	w.
Bluewater.	Valencia.	6,732	8	68.4		94	21	41	7	50	1.27		0.45	0.0	9	4	27	0	nw.
Bluewater Reservoir.	do.	9,000	1																
Boaz.	Chaves.	4,154	1	76.4 ⁺		101	3	50 ⁺	26	37 ⁺	3.81		1.58	0.0	8	8	23	0	s.
Capitan.	Lincoln.	6,348	1								4.67		1.04	0.0	12	26	5	5	
Carlsbad.	Eddy.	3,120	15	83.2	+ 3.2	108	2	62	25	42	1.55	-0.68	0.70	0.0	5	17	11	3	s.
Carrizozo.	Lincoln.	5,429	2								2.51		1.67	0.0	6	6	24	1	e.
Carson Park.	Taos.	7,650									2.11		0.55	0.0	9				Do.
Chams.	Rio Arriba.	7,851	11	63.2	- 1.4	88	22	39	31	40	2.27	-0.33	0.80	0.0	6	20	11	0	sw.
Cloudcroft.	Otero.	8,650	7	58.6		78	2	43	26 ⁺	31	7.31		1.38	0.0	14	12	11	8	ne.
Corona.	Lincoln.	6,666	1								2.59		0.81	0.0	8				
Coyote.	do.	5,800	1								3.03		0.90	0.0	14	6	3	22	
Cundiyo.	Santa Fe.	6,889	1								1.76		0.50	0.0	11	7	11	13	w.
Demonstration Farm.	San Miguel.	6,800	1								3.71		1.22	0.0	14				se.
Duran.	Torrance.	6,272	1								2.61		0.90	0.0	6	6	22	3	
Elk (near).	Chaves.	7,400	11								3.06		1.15	0.0	8	7	20	4	se.
Escondido.	Otero.	4,014	1			104	23												
Espanola.	Rio Arriba.	5,500	12			95	8 ⁺	50	10	41	2.59		1.00	0.0	10	13	13	5	e.
Estancia.	Torrance.	6,140	5	72.6		94	24	44	26	42	4.57	+ 1.07	1.31	0.0	17	12	7	12	e.
Fort Stanton.	Lincoln.	6,231	32	69.4	+ 2.2														
Fort Sumner.	Guadalupe.	3,960	2																
Gallinas.	Lincoln.	6,635	1																
Gallinas Planting Station.	San Miguel.	7,500	3	64.3		86	21 ⁺	42	26	38	3.06		0.75	0.0	3	18	4	9	w.
Harvey's Upper Ranch.	Valencia.	9,400	1										0.68	0.0	17	0	29	2	sw.
Hillsboro.	Sierra.	5,224	13								6.56		1.73	0.0	17	11	16	4	sc.
Hodges.	Taos.	8,484	1																
Hondo Reservoir.	Chaves.	3,904	1	78.6		103	2	52	26	38	4.09		2.00	0.0	9	14	9	8	se.
Hope.	Eddy.	4,000	3																
Hopewell.	Rio Arriba.	9,500	1	55.5		79	22	35	31	37	2.95		0.56	0.0	15	6	13	12	ne.
Jemez Springs.	Sandoval.	6,100											0.65	0.0	9	9	17	5	sw.
Knowles (near).	Eddy.	4,300		79.0		104	2	58	26 ⁺	36	3.71		2.77	0.0	7	9	18	4	se.
Laguna.	Valencia.	5,840	5	75.4		98	20 ⁺	52	28	40	1.63		1.10	0.0	4	8	15	8	
Lagunita.	Guadalupe.	4,500	5	73.9		98	2	52	31	40	5.59		1.86	0.0	11	11	4	4	se.
Lake Valley.	Sierra.	5,412	5								1.24		0.54	0.0	10	1	30	0	sw.
Las Vegas.	San Miguel.	6,384	23	69.2	+ 1.3	96	24	44	27	50	3.72	+ 0.34	0.77	0.0	14	13	10	8	sw.
Liston.	Chaves.	5,000	20	75.5	+ 1.3	100	6	50	31	40	0.31	- 0.85	0.18	0.0	3	10	20	1	
Los Lunas (near).	Valencia.	4,900	1								4.30		3.00	0.0	7	13	16	2	sw.
Los Tanos.	Guadalupe.	5,657	5	70.7		93	22	49	25	39	2.86		0.70	0.0	11	3	25	3	w.
Magdalena.	Socorro.	6,557	5								3.42		0.65	0.0	9	0	31	0	sw.
Mineral Hill.	San Miguel.	7,050	5								2.14		1.49	0.0	7	9	19	3	sw.
Monterey.	Otero.	4,436	1								1.32		0.67	0.0	5	15	16	0	e.
Mountainair.	Torrance.	6,547	8	69.9		95	21 ⁺	49	26	37	3.28		1.23	0.0	8	13	14	4	sw.
Newman.	Otero.	3,939	1								2.14		0.67	0.0	7	13	13	5	w.
Noria.	Dona Ana.	4,114	1								1.24		0.32	0.0	7	13	13	5	w.
Orange.	Otero.	5,000	1								0.95		0.55	0.0	3	6	21	4	n.
Orogrande.	do.	4,171	1								1.11		0.58	0.0	3	7	23	1	w.
Oscuro (near).	Lincoln.	5,016	1								1.54		0.52	0.0	13	14	15	2	s.
Otis.	Eddy.	3,100	1								1.74		0.78	0.0	8	25	1	5	se.
Otto.	Santa Fe.	6,200	1								2.62		1.70	0.0	6				
Pastura.	Guadalupe.	5,285	1								5.19		2.86	0.0	10	9	18	4	ne.
Picacho (near).	Lincoln.	5,000	1																
Plainview (near).	Chaves.	4,300																	
Red River Canyon.	Taos.	8,956	2	60.1		80	2 ⁺	36	27	44	3.40		0.50	0.0	13	6	23	2	c.
Rincon.	Dona Ana.	4,050	12	81.8	+ 3.9	105	3	61	26 ⁺	39	1.89	- 0.55	0.96	0.0	5	1	15	15	s.
Rio Grande Dam.	Sierra.	4,285	12	80.5	+ 4.3	103	22	59	31	38	0.97	- 1.67	0.32	0.0	6	10	20	1	w.
Rosedale.	Socorro.	6,910	5	68.3		87	22	50	26	31	3.96		0.68	0.0	21	10	6	15	w.
Roswell.	Chaves.	3,578	12	77.4	+ 0.8	99	2	52	26	36	2.03	+ 0.57	1.01	0.0	10	9	15	7	se.
San Marcial.	Socorro.	4,439	14	80.4	+ 3.2	101	13 ⁺	50	47	40	3.01		0.0	0	4	23	24	0	sw.
San Rafael.	Valencia.	6,500	6	74.0		102	10	47	17	53	2.51		0.82	0.0	10	14	7	10	s.
Santa Fe.	Santa Fe																		

TABLE 1.—Climatological data for August, 1910. District No. 8—Continued.

Stations	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .10 inch or more.	Number of partly cloudy days.	Number of clear days.			
New Mexico—Cont'd.																				
Windors.	San Miguel.	8,200	12	60.4	+ 1.8	84	17	37	7	43	6.07	+ 2.41	0.89	0.0	16	4	11	16	w.	
Texas.	Taylor.	1,738	25	55.9	+ 4.7	105	2	64	27	31	2.87	+ 0.30	2.58	0.0	5	11	12	8	s.	
Abilene.	Albany.	1,429	16	54.9	+ 2.8	109	2†	60	27	41	1.28	- 0.42	1.18	0.0	3	23	5	3	
Anahuac.	Shackelford.	23	1								1.27		0.45	0.0	5				B. H. Collins.	
Austin.	Chambers.	593	54	56.4	+ 2.7	100	21	72	26†	26	0.07	- 2.34	0.07	0.0	1	11	18	2	sw.	
Ballinger.	Travis.	1,637	15	56.6	+ 4.1	108	2	63	27	37	0.75	- 1.57	0.40	0.0	2	18	10	3	s.	
Barstow.	Runnels.	2,573	3	53.9		106	24	64	1	36	1.02		1.02	0.0	1	28	3	0	se.	
Bay City.	Ward.	53									1.64		1.23	0.0	2	12	7	12	s.	
Beaumont.	Matagorda.	29	13	54.3	+ 4.7	97	21†	73	61†	22	3.35	- 0.97	1.20	0.0	8	16	0	15	se.	
Beeville.	Jefferson.	225	14	56.0	+ 0.8	103	21	60	24	31	0.26	- 2.35	0.22	0.0	2	13	12	6	sc.	
Big Springs.	Bee.	2,396	12	57.3		109	2†	59	26	41	0.04	- 1.74	0.04	0.0	1	12	19	0	s.	
Blanco.	Howard.	1,350	14	54.6	+ 1.9	104	12	61	27	38	0.37	- 1.53	0.23	0.0	2	19	12	0	s.	
Boerne.	Kendall.	1,412	18	56.8	+ 5.2	104	12†	65	19†	36	T.	- 2.20	T.	0.0	0	17	13	1	se.	
Booth.	Fort Bend.	81	9										0.85	0.0	7	25	0	6	sw.	
Boquillas.	Brewster.			93.1		113	2	74	19†	31	0.09		0.00	0.0	0				
Bowie.	Montague.	1,113	16	57.0	+ 4.5	111	3	64	28†	33	1.63	- 0.06	1.02	0.0	3	9	13	9	s.	
Brazoria.	Brazoria.	28	34.0	+ 3.0	99	15	71	17	71	71	0.71	- 4.35	0.25	0.0	7	27	0	0	
Brazos.	Palo Pinto.	801	1								0.00		0.00	0.0	9	20	2	2	sw.	
Brenham.	Washington.	350	21	57.4	+ 3.9	103	13†	73	27	26	0.12	- 2.59	0.09	0.0	2	16	12	3	s.	
Bridgeport.	Wise.	754	1								0.58		0.40	0.0	4	15	11	5	s.	
Brighton.	Nueces.	12	14	52.6	- 0.5	96	26	72	28†	29	1.46	- 0.22	1.46	0.0	1	21	6	4	se.	
Brownsville.	Cameron.	38	21	54.0	+ 1.1	96	14†	70	20	22	1.26	+ 4.46	5.72	0.0	0				s.	
Brownwood.	Brown.	1,342	20	56.8	+ 3.1	108	2†	60	26†	42	0.23	- 1.71	0.15	0.0	2	20	8	3	s.	
Cameron.	Milam.																	J. E. Watts.		
Carmona.	Polk.	330	2	55.2		101	22	64	29	36	0.60		0.30	0.0	5	15	13 ^a	2 ^a	s.	
Claytonville.	Fisher.	2,100	15															M. S. Spitzer.		
Coleman.	Coleman.	1,710	16	56.4	+ 5.7	107	3	65	26	32	0.85	- 2.23	0.50	0.0	2	13	15	3	se.	
College Station.	Brazos.	308	19	56.8	+ 3.8	104	14	70	27	30	1.14	- 1.00	0.55	0.0	6	21	9	1	s.	
Colorado.	Mitchell.	2,066	16	53.2	+ 0.5	106	3	57	27	40	0.99	- 1.08	0.35	0.0	4				s.	
Columbus.	Brazoria.	34	21	53.5	+ 1.7	100	9†	68	5†	31	1.16	- 2.58	0.80	0.0	5	17	14	0	s.	
Columbus.	Colorado.	206	6										0.92		0	3	20	11	0	sw.
Comstock.	Valverde.	1,557	1	58.6		102	2†	69	20	29	0.00		0.00	0.0	0	22	3	6	se.	
Corpus Christi.	Nueces.	20	23	52.4	+ 0.3	94	26	73	31	27	1.76	+ 0.48	1.20	0.0	6	13	12	6	se.	
Corsicana.	Navarro.	445	21	58.6	+ 5.3	106	3	68	26†	31	2.12	+ 0.16	1.96	0.0	3	20	4	7	se.	
Crockett.	Houston.	350	6								1.05		0.83	0.0	1	20	11	0	s.	
Cuero.	DeWitt.	177	21	57.1		105	9	71	27	31	0.83		0.83	0.0	1	21	6	4	se.	
Dallas.	Dallas.	466	21	57.6	+ 2.8	104	16	71	1†	31	1.72	- 1.13	0.51	0.0	4	16	8	7	s.	
Danevang.	Wharton.	145	14	54.9	+ 1.1	99	1†	70	5	27	0.60	- 2.82	0.22	0.0	1	15	1	15	s.	
Decatur.	Wise.	1,047	14								0.98	- 1.29	0.97	0.0	2	11	16	4	
Del Rio.	Valverde.	952	4	57.9	+ 3.9	102	23	70	26	27	0.26	- 1.23	0.26	0.0	1	24	7	0	se.	
Devine.	Medina.	653		57.6		104	2†	64	31	32	1.38		1.38	0.0	1	29	1	1	se.	
Dialville.	Cherokee.	575	6	55.6		103	21	67	27	29	0.26		0.20	0.0	2	12	16	3	s.	
Dilley.	Frio.	569									1.00		1.00	0.0	1				J. M. B. Knight.	
Dublin.	Erath.	1,466	15	55.8	+ 3.8	109	3	65	26†	34	0.94	- 0.99	0.65	0.0	2	18	7	6	se.	
Duval.	Travis.	820	21	55.6	+ 1.4	100	2†	71	27	27	0.45	- 1.31	0.45	0.0	1	18	8	5	se.	
Eagle Pass.	Maverick.	800	21	52.0	+ 6.1	107	3	75	3†	32	1.02	- 1.57	0.90	0.0	2	31	0		J. C. Edgar.	
Edna.	Jackson.	71	1										0.50	0.0	3				E. L. Faires.	
El Paso.	El Paso.	3,762	31	52.2	+ 3.6	101	2	65	26	29	1.18	- 0.54	0.38	0.0	11	16	15	0	ne.	
Encinal.	La Salle.	558	2	57.8		106	2†	70	1†	34	1.00		0.85	0.0	2	13	14	4	se.	
Fairland.	Burnet.	1,000	22	57.0		106	2†	69	27	37	1.76	- 0.31	1.00	0.0	3	25	6	0	s.	
Falfurrias.	Starr.	3	21	56.3		105	2†	69	19†	35	1.31		1.01	0.0	3	20	10	1	se.	
Flatonia.	Fayette.	465	2	56.2		102	12†	71	19†	31	0.96		0.47	0.0	5	14	16	1	s.	
Flint.	Smith.	483		56.0		105	23	69	30	32	0.20		0.15	0.0	3	17	11	3	se.	
Fort Clark.	Kinney.	1,050	23	57.4	+ 2.4	103	2	65	25†	30	0.35	- 1.57	0.30	0.0	2	16	13	2	e.	
Fort McIntosh.	Webb.	480	24	51.2	+ 4.4	106	2	74	31	27	1.75	- 0.06	1.75	0.0	1	13	3	15	e.	
Fort Stockton.	Pecos.	3,050	13	55.8	+ 7.4	109	2	59	26	44	T.	- 2.30	T.	0.0	0	7	24	0	se.	
Fort Worth.	Tarrant.	670	15	56.4	+ 3.5	104	12	67	27	28	0.26	- 1.61	0.18	0.0	4	8	22	1	s.	
Fredericksburg.	Gillespie.	1,742	21	53.8	+ 3.4	101	12	67	24	32	0.17	- 2.19	0.13	0.0	2	14	17	0	s.	
Gainesville.	Cooke.	738	21	55.4	+ 3.2	107	2†	61	27	32	1.64	- 0.54	0.94	0.0	5				
Galveston.	Galveston.	69	40	53.8	+ 1.2	90	24	71	19	15	2.01	- 3.00	1.24	0.0	5	16	14	1	se.	
Gatesville.	Corryell.	795	6	56.8		104	10	67	26	30	3.65		3.65	0.0	1	27	4	0	s.	
Georgetown.	Williamson.	750	15	56.5	+ 3.7	105	22	68	26†	34	0.86	- 1.01	0.73	0.0	3	27	4	0	s.	
Gonzales.	Gonzales.	299	5								0.05		0.05	0.0	1	17	10	4	se.	
Graham.	Young.	1,040	11	50.0	+ 5.5	112	3	70	14	38	0.77	- 1.92	0.38	0.0	5	21	6	4	s.	
Grand Saline.	Van Zandt.										2.70		1.28	0.0	5	14	15	2	s.	
Grapevine.	Tarrant.	670	20	58.2		107	1	68	10	35	0.72	- 0.87	0.72	0.0	1	21	14	5	
Greenville.	Hunt.	550	10	57.4	+ 3.2	107	3†	65	27	31	0.00	- 2.31	0.00	0.0	0	16	0	15	1	s.
Halletteville.	Lavaca.	235	19	57.5	+ 3.8	103	5	73	14†	28	0.05	- 1.98	0.05	0.0	1	21	9	1	se.	
Harper.	Haskell.	4,013	19	57.1	+ 3.9	114	2	63	25†	40	0.88	- 0.47	0.35	0.0	3	15	15	3	s.	
Haskell.	Hebronville.	3	3								0.47		0.25	0.0	3				Henry D. Haskell.	
Hempstead.	Waller.	234	6								0.70		0.50	0.0	2	13	7	11	sw.	
Henderson.	Rusk.	500	1								2.62		0.80	0.0	7	14	10	7	sw.	
Hewitt.	McLennan.	664	15																	

TABLE 1.—*Climatological data for August, 1910. District No. 8—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.					
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
Texas—Cont'd.																					
Lufkin.	Angelina.	325	3	85.6		104	2	68	31	31	0.42		0.26	0.0	2	23	6	2	s.		
Luling.	Caldwell.	418	21	86.3	+ 2.5	102	21	71	30	28	0.05	- 1.88	0.05	0.0	1	22	8	1	s.		
Marathon.	Brewster.	4,043	7	78.0		99	3	55	26	33	0.25		0.15	0.0	2	5	15	11	s.		
Marble Falls.	Burnet.	771	2										0.68	0.0	2	17	10	4	sw.		
Marfa.	Presidio.		2										0.50	0.0	3				R. K. Colquitt.		
Marshall.	Harrison.	375	1	83.0		102	21	65	27	29	3.16		1.08	0.0	7	9	29	2	sw.		
Matagorda.	Matagorda.												1.35		0.53	0.0	3	22	7	2	sc.
Mexia.	Limestone.	537	6	85.4		105	22	66	27	33	2.10		1.60	0.0	2	9	16	6	w.		
Midland.	Midland.		3										0.28	0.0	1	19	12	0	se.		
Mission.	Hidalgo.																		H. J. Elder.		
Mont Belvieu.	Chambers.	65											3.14		1.25	0.0	7	9	21	1	s.
Mountain View.	Crosby.	2,750	22	79.4	+ 1.7	105	3	53	26	38	3.91	+ 1.38	1.61	0.0	4	14	10	7	s.		
Mt. Blanco.	Nacogdoches.	271	11	82.8	+ 1.2	99	23	68	31	27	1.84	- 0.57	0.70	0.0	4	18	4	9	ne.		
New Braunfels.	Comal.	720	21																J. Giesecke.		
Palestine.	Anderson.	510	28	84.4	+ 3.9	99	21	69	27	24	0.96	- 1.26	0.76	0.0	3	15	14	2	s.		
Panter.	Hood.	1,000	20										0.15	- 2.21	0.09	0.0	2			E. H. Snider.	
Pearshall.	Frio.	620											0.56		0.49	0.0	2			Earnest De Vilbiss.	
Pierce.	Wharton.	102	4	81.3		99	21	67	4	29	0.57		0.31	0.0	3	14	15	2	R. B. Pointer.		
Plainview.	Hale.	3,370	18	77.6		103	2	50	28	40	2.67	+ 0.23	1.31	0.0	0	12	18	1	s.		
Port Lavaca.	Cathoun.	20	9	86.0		99	91	70	30	30	2.55		0.50	0.0	3	20	9	2	s.		
Post City.	Garza.												1.08		0.34	0.0	4	17	13	1	J. F. Sander.
Ricardo.	Nueces.	57	1	85.4		102	11	69	24	31	2.05		1.20	0.0	2	19	10	2	se.		
Riverside.	Walker.	169	6										0.23		0.0	1	24	0	7	s.	
Robert Lee.	Coke.	1,850	11	84.0		107	13	64	26	35	0.95	- 1.06	0.47	0.0	4	25	4	2	s.		
Rockland.	Tyler.	138	6										0.00		0.0	0	19	8	4	s.	
Rossville.	Atascosa.	553	3	87.1		107	13	70	24	32	0.95		0.78	0.0	4	16	15	0	se.		
Runge.	Karnes.	308	15										0.30		0.0	2	14	5	12	e.	
Sabinal.	Uvalde.	964	6	87.8		105	13	71	19†	31	0.25		0.15	0.0	2	18	7	6	s.		
Salado.	Bell.												0.70		0.0	2	18	7	6	L. M. Crockett.	
San Angelo.	Tom Green.	1,847	19	87.2		107	14	65	26†	32†	T.	- 2.89	T.	0.0	0	16	11	4	s.		
San Antonio.	Bexar.	701	25	86.1	+ 4.1	100	21	73	24	26	0.37	- 2.32	0.14	0.0	4	18	12	1	se.		
San Augustine.	San Augustine.	380	1	83.7		101	23	67	30†	30	1.45		1.45	0.0	1	13	10	8	s.		
San Juanito.	Hidalgo.												1.80		1.75	0.0	2	16	4	1	se.
San Marcos.	Hays.	588	17	85.4	+ 2.3	100	2†	69	24	30	0.36	- 1.32	0.36	0.0	1	27	0	4	s.		
San Saba.	San Saba.	1,712	6	86.8		105	2†	64	27	33	0.06		0.08	0.0	1	37	4	0	s.		
Santa Gertrudes.	Nueces.												2.96	+ 0.67	1.94	0.0	2	19	3	9	s.
Seymour.	Baylor.	1,320	4	84.2		100	3	50	27	34	2.11		1.43	0.0	4	19	3	9	s.		
Sligo.	Yoakum.																	F. N. Deaver.			
Somerville.	Burleson.	251	1	85.7		103	11†	65	26	33	0.06		0.04	0.0	2	11	20	0	s.		
Sonora.	Sutton.	2,200	7															W. A. Dolan.			
Sugarland.	Fort Bend.	79	12			105	10†				3.05	- 0.05	1.75	0.0	4	25	0	6	s.		
Sutherland Springs.	Wilson.												0.47	0.0	2	24	5	2	s.		
Taylor.	Williamson.	583	9	85.8	+ 4.1	101	21	70	26	26	0.05	- 2.42	0.04	0.0	2	23	8	0	s.		
Temple.	Bell.	630	16	86.4	+ 3.9	100	2	68	26	30	0.62	- 1.30	0.55	0.0	3	22	8	1	s.		
Theodore.	Winkler.												1.80		1.65	0.0	2	22	1	1	W. H. Gibbs.
Thurber.	Erath.												0.40		0.26	0.0	2	17	12	2	J. K. Ball.
Tilden.	McMullen.	4	88.9			108	2†	65	9	41†	0.30		0.21	0.0	2	11	17	3	se.		
Tivoli.	Refugio.												0.77		0.77	0.0	1	17	12	2	W. H. Gisler.
Uvalde.	Uvalde.	937	2	87.6		105	14	71	1	32†	T.		T.	0.0	0	7	24	0	se.		
Valley Junction.	Robertson.	289	10										0.00	- 2.00	0.00	0	19	11	1	s.	
Victoria.	Victoria.	187	12	86.9	+ 4.4	103	21	72	24	28	0.80	- 2.08	0.45	0.0	2	23	5	3	s.		
Waco.	McLennan.	424	21	89.3	+ 4.4	105	1†	70	26	28	T.	- 2.84	T.	0.0	2	22	1	1	C. C. Zirjacks.		
Waxahachie.	Ellis.	556	14	86.0	+ 3.0	106	2†	67	27	34	2.31	+ 0.42	2.25	0.0	2	20	6	5	s.		
Weatherford.	Parker.	864	21	88.6	+ 4.3	105	3	67	27	30	0.19	- 1.88	0.18	0.0	2	19	8	4	n.		
Wharton.	Wharton.	105	8	84.6		100	3†	70	25	26	2.38		0.74	0.0	2	20	5	6	s.		
Wills Point.	Van Zandt.	524	5	88.3		104	2†	67	26	36	2.13		2.05	0.0	2	23	4	4	s.		
Zapata.	Zapata.	300	1	89.4		109	2	68	30	34	0.59		0.49	0.0	2	17	11	3	se.		

^a, ^b, ^c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

Estimate by observer.

¶ Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1910. District No. 8, Texas and Rio Grande Valley.*

TABLE 2.—*Daily precipitation for August, 1910. District No. 8—Continued.*

Stations.	River basins.	Day of month.																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
Texas—Cont'd.																																		
Barstow	Pecos																																	1.02
Bay City	Colorado																																	1.64
Beaumont	Neches	.07	.02	1.20																													3.35	
Beeville	Coast																																0.26	
Big Spring	Colorado																																0.04	
Blanco	Guadalupe																																0.37	
Boerne	San Antonio																																0.00	
Booth	Brazos																																1.71	
Bouquillas	Rio Grande																																0.00	
Bowie	Trinity																																1.63	
Brazoria	Brazos																																0.71	
Brazos	do																																0.00	
Brenham	Trinity																																0.12	
Bridgeport	Coast																																1.46	
Brighton	Brownsville																																7.26	
Brownwood	Rio Grande																																2.28	
Cameron	Colorado																																0.28	
Carmona	Brazos																																0.60	
Claytonville	Neches																																0.60	
Coleman	Colorado																																0.85	
College Station	Brazos																																1.14	
Colorado	Colorado																																0.98	
Columbia	Brazos																																1.16	
Columbus	Colorado																																0.92	
Comstock	Rio Grande																																0.00	
Corpus Christi	Coast																																2.78	
Corsicana	Trinity																																2.12	
Crockett	do																																0.83	
Dallas	Guadalupe																																1.22	
Danevang	Trinity																																0.72	
Decatur	Coast																																0.60	
Del Rio	Rio Grande																																0.26	
Devine	Nueces																																1.38	
Dialville	Neches																																0.26	
Dilley	Nueces																																1.00	
Dublin	Brazos																																0.95	
Duval	Colorado																																0.48	
Eagle Pass	Rio Grande																																1.02	
Edna	Lavaca																																0.98	
El Paso	Rio Grande	.38	T.	.01																													0.08	
Encinal	Nueces																																1.18	
Fairland	Colorado																																1.00	
Falfurrias	Coast																																1.76	
Flatonia	Guadalupe																																0.09	
Flint	Neches																																0.98	
Fort Clark	Rio Grande																																1.75	
Fort McIntosh	Guadalupe																																0.35	
Fort Stockton	Trinity																																1.75	
Fredericksburg	Colorado																																0.12	
Gainesville	Trinity																																1.64	
Galveston	Coast																																2.01	
Gatesville	Brazos	.05	T.	.02																													3.65	
Georgetown	Colorado																																0.86	
Gonzales	do																																0.05	
Graham	Guadalupe																																0.77	
Grand Saline	Brazos																																2.70	
Grapevine	Sabine																																0.00	
Greenville	Trinity																																0.00	
Hallettsville	Sabine																																0.00	
Harper	Lavaca																																0.00	
Haskell	Colorado																																0.88	
Hebronville	Brazos																																0.47	
Hempstead	Coast																																50	
Henderson	Brazos																																2.62	
Hewitt	Neches																																0.55	
Hillsboro	Brazos																																0.27	
Hondo	Nueces																																3.80	
Houston	Coast																																2.45	
Huntsville	Trinity																																3.65	
Jayton	Brazos	.35		.55																												1.15		
Jewett	Trinity																															0.00		
Junction	Colorado																															0.00		
Kaufman	Trinity																															0.91		
Keene	Brazos																															0.00		
Kerrville	Guadalupe	</td																																

TABLE 2.—*Daily precipitation for August, 1910. District No. 8—Continued.*

TABLE 3.—Maximum and minimum temperatures at selected stations, August, 1910 District No 8, Texas and Rio Grande Valley.

Colorado.								New Mexico.																Texas.							
Date.	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountainair.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.						
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
1...	83	47	79	50	100	69	101	64	91	56	90	57	82	59	98	63	82	58	97	68	103	78	106	74	95	74	89	76			
2...	72	45	82	50	102	71	108	66	92	60	93	57	85	59	99	63	85	58	102	62	105	80	109	75	94	76	90	76			
3...	79	48	79	50	101	70	103	73	90	58	80	57	84	62	99	73	80	60	102	62	104	82	109	79	94	76	88	77			
4...	75	51	80	53	96	74	100	74	90	59	81	54	88	64	97	55	91	63	91	63	99	74	103	95	72	93	88	78			
5...	70	44	77	48	93	66	91	66	84	56	83	54	82	59	87	63	73	55	89	63	99	74	103	71	95	77	90	78			
6...	78	36	77	40	95	67	96	70	87	54	85	54	84	58	92	68	81	50	91	60	100	75	105	76	94	77	88	78			
7...	80	37	83	44	94	66	98	66	88	54	92	57	85	57	95	65	83	58	97	61	100	72	103	74	93	78	89	79			
8...	81	38	79	43	97	73	96	72	83	54	82	50	80	60	93	66	82	62	99	66	108	78	102	74	94	76	87	78			
9...	75	40	77	45	94	67	98	68	84	56	93	57	80	56	93	66	79	58	90	63	102	79	104	76	95	77	89	78			
10...	78	37	78	44	89	65	99	70	80	54	80	57	74	56	83	67	77	58	91	62	101	78	103	76	95	75	88	77			
11...	76	45	78	43	95	69	101	68	84	57	84	55	82	56	88	68	78	56	92	63	103	76	104	72	95	75	90	77			
12...	77	43	74	49	95	69	97	70	88	56	89	55	94	54	94	67	74	54	90	61	108	80	104	79	96	74	88	76			
13...	79	41	76	50	99	66	101	68	83	55	92	59	93	64	94	81	91	57	95	63	105	80	107	79	96	76	90	77			
14...	72	45	80	47	98	67	97	70	83	52	87	59	78	55	86	65	80	60	86	73	103	73	99	72	96	76	88	78			
15...	81	41	79	44	90	69	101	69	84	58	85	54	78	56	93	66	81	58	92	63	101	72	106	68	95	75	87	77			
16...	80	44	77	46	93	71	99	72	84	58	85	56	78	58	93	64	80	63	95	66	108	73	105	74	96	76	86	79			
17...	78	41	78	44	95	72	101	73	81	55	85	58	83	54	94	70	82	55	94	64	108	76	106	76	96	76	86	77			
18...	82	42	82	45	99	70	97	72	75	56	86	54	74	55	80	64	77	55	84	63	108	73	107	72	90	76	84	74			
19...	83	43	83	44	98	68	98	71	78	57	88	57	76	57	86	69	80	54	89	61	108	70	109	71	90	76	87	78			
20...	85	46	81	47	93	66	94	66	87	52	92	55	83	55	91	65	84	56	95	61	108	70	102	65	92	76	88	75			
21...	86	43	79	46	100	66	102	65	88	55	95	58	86	59	95	64	85	58	99	62	101	74	106	74	96	74	92	76			
22...	86	48	83	45	102	72	101	66	89	54	95	60	87	59	96	65	84	61	100	64	102	77	106	78	96	76	87	77			
23...	80	45	82	54	100	73	101	66	90	56	83	60	84	59	96	63	83	59	98	62	102	79	106	76	95	76	87	77			
24...	81	38	81	46	102	72	104	67	94	55	87	61	85	65	98	62	85	57	102	65	102	76	105	75	95	73	87	74			
25...	78	35	76	40	87	70	102	62	83	53	86	51	73	57	80	69	89	51	92	63	108	69	102	65	93	72	88	78			
26...	82	40	79	39	90	62	87	63	86	44	81	43	79	50	83	52	79	48	86	64	108	73	105	74	96	73	86	77			
27...	82	40	83	40	97	64	100	63	85	50	85	57	83	58	94	61	81	55	95	64	102	61	101	74	98	73	86	78			
28...	81	41	80	49	99	65	102	63	88	51	80	53	84	56	97	64	83	55	101	62	108	76	105	75	92	76	88	78			
29...	82	42	78	48	96	68	100	65	86	56	88	57	70	51	95	64	81	56	99	63	108	74	108	74	90	76	88	78			
30...	83	43	83	49	84	61	94	71	67	55	65	52	65	52	73	60	65	52	79	59	108	70	109	75	90	76	87	78			
31...	72	39	70	41	88	62	94	63	73	51	68	50	78	52	88	70	50	55	95	69	108	68	102	72	92	73	82	73			
Mns	79.1	42.7	78.7	45.9	94.9	68.1	98.5	68.0	84.4	54.5	83.0	55.9	79.9	56.7	90.0	64.3	70.5	56.2	93.0	61.2	97.2	74.6	101.7	72.9	93.1	74.9	87.9	76.8			

Texas.																												
Date.	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1...	99	74	98	75	105	78	105	63	102	74	88	80	100	74	95	75	102	75	98	76	108	98	105	72	98	76	106	
2...	102	76	101	75	106	80	109	65	104	84	87	80	101	75	96	75	104	75	97	76	108	100	107	83	100	74	106	
3...	101	78	101	74	105	80	107	75	102	83	87	81	101	75	96	75	100	75	98	74	109	97	109	72	99	74	107	
4...	98	73	93	74	105	80	109	75	102	83	87	81	101	75	96	75	100	75	98	74	108	95	108	70	97	75	105	
5...	98	77	92	66	103	80	102	66	91	78	84	79	93	77	91	74	98	77	98	72	108	80	109	70	97	75	105	
6...	98	76	95	73	104	80	104	74	97	78	88	80	100	78	93	75	100	72	94	74	108	98	105	73	98	76	106	
7...	97	77	94	69	103	80	109	72	90	78	87	81	101	74	95	75	101	72	99	74	108	98	105	73	98	76	106	
8...	98	78	95	73	105	80	108	73	97	78	88	81	101	76	96	75	101	72	99	74	108	98	105	73	98	76	106	
9...	100	79	97	70	105	80	108	72	93	78																		